

# MINAB Pac

## Packaging machines

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### MINAB FDPL

The machines intended use is to fully automatically package bottles, jugs, cans, etc.

The machines construction is plain and robust. Service and stops are therefore kept to a minimum.

The machine is designed for easy and quick adjustments between different types of containers.

#### Safety

Easy access while resetting, cleaning and service. The cover is, as a standard, made from aluminum and Lexan.

#### Material

The stand is made of aluminum. Stainless steel available on request. Format parts of aluminum. Cylinders: Standard cylinders from SMC pneumatics. Airpreparation and valves from Norgren AB

#### Resetting

Formatdependent parts are modular making the machine very quick to reset as well as easy to add new formats.

Parameters for each format can be programmed on the display. These parameters are saved as "recipes" to be used again when needed. This saves time when changing back to an earlier format.

#### Gripper tools

Gripper tools are manufactured for each format and pattern. The technics we use are:

- Bellows
- Mechanical gripper tools
- Vacuum

#### Interface Operator – Machine

For the MINAB FDPL series we use an industrial PC with touchscreen. It provides information that is easy to understand. Easy to keep clean. Flexible for future expansion. Windows CE as operatingsystem.

#### Description of function.

The machine has three phases of handling. Feeding, Gripping and handling of boxes.

During feeding a settable pattern is created for the gripping phase. When the machine senses that the pattern is full a gripper tool will be lowered to pick up the bottles. The gripper tool makes a horizontal movement and lowers the bottles into the box which has been stopped on the conveyer. Before the gripper tool is lowered the boxflaps have been opened by four cylinders. Once the tool is lowered completely it releases the bottles and then returns to pick up a new pattern. The filled box is then feed out of the machine.

